

# **National Primary Drinking Water Regulation Compliance**

Water provided by the Akron Water Supply Bureau meets the current United States Environmental Protection Agency (USEPA) and Ohio Environmental Protection Agency (OEPA) regulatory requirements by a wide margin.

The City of Akron Public Water System met all regulations for treating, testing and reporting the quality of its drinking water in 2012.

#### **Water Source**

Three impounding reservoirs take surface water from the Upper Cuyahoga River. Water is stored and released from Wendell R. LaDue Reservoir and East Branch Reservoir, both in Geauga County. These reservoirs supplement Lake Rockwell, located in Franklin Township, Portage County, 2.5 miles north of Kent, Ohio. Water from Lake Rockwell is treated at the nearby water supply plant, pumped 11 miles to Akron through three force mains into equalizing reservoirs and distributed to more than 80,000 households. Because 21 percent of the system is at higher elevations, eight districts are supplied by additional pump stations and tanks.

### **Source Water Contamination**

While the source water for the City of Akron Public Water System is considered susceptible to contamination, historically, the City of Akron Public Water System has effectively treated this source water to meet drinking water quality standards.

Potential sources of contamination include agricultural runoff, failing on-site wastewater treatment systems (septic systems), municipal wastewater treatment discharges and non-point sources. In addition, the source water is susceptible to contamination through derailments, motor vehicle accidents or spills at sites where the corridor zone is crossed by roads and rail lines, or at fuel storage and vehicle service areas located adjacent to the corridor zone.

Please note that this assessment is based on data available and may not reflect current conditions. Water quality, land uses and other potential sources of contamination may change over time.

For more information about the source water assessment program, go to www.epa.ohio.gov/ddagw/swap.aspx. For further information regarding Akron's source water assessment, please write to Akron Water Supply at 1570 Ravenna Road, Kent, OH 44240-6111.

# **Required Health Information**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some

cases, radioactive material, and can pick up substances resulting from the presence of animal or human activity.

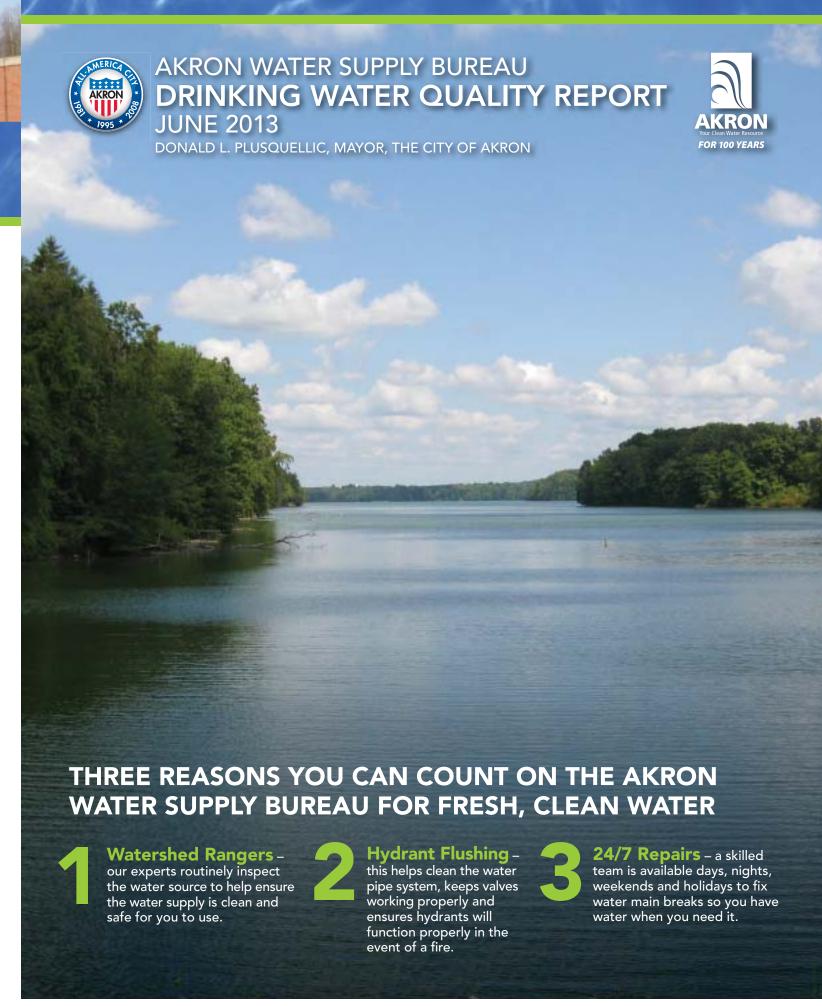
Contaminants that may be present in source water include:

- 1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- 2. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- 3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses;
- 4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff and septic systems; and
- 5. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).



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# **HOW TO READ THE FOLLOWING TABLES**

This report is based on tests conducted in 2012 by the Akron Water Supply Bureau. Terms used in the Water Quality Table and in other parts of this report are defined here.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

# **Maximum Residual Disinfectant Level (MRDL):**

The highest residual disinfectant level allowed.

## **Maximum Residual Disinfectant Level Goal (MRDLG):**

The level of residual disinfectant below which there is no known or expected health risk.

**Detected Level:** The average level detected of a contaminant for comparison against the acceptance levels for each parameter. These levels could be the highest single measurement or an average of values, depending on the contaminant.

**Range:** The range of all values for samples tested for each contaminant.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

# Key to Tables

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

MRDL = Maximum Residual Disinfectant Level

MRDLG = Maximum Residual Disinfectant Level Goal

**NTU** = Nephelometric Turbidity Units

**ppm** = Parts per million, or milligrams per liter (mg/L)

**ppb** = Parts per billion, or micrograms per liter (µg/L)

TT = Treatment Technique

**NA** = Not Applicable

# NOT UNDER OHIO EPA REGULATION BUT OF GENERAL INTEREST

- 1915	Average Detected Level	Range		
Alkalinity	78 mg/L	42 - 101 mg/L		
Hardness (metric units)	117 mg/L	60 - 154 mg/L		
Hardness (English units)	7 grains per gallon	4 - 9 grains per gallon		
рН	7.25 units	6.91 - 7.68 units		
Sodium	48.9 mg/L	NA, one test, in 2010		
Total solids	275 mg/L	NA, one test, in 2010		
Temperature (metric units)	14.3° C	2.0 - 28.0° C		
Temperature (English units)	58° F	36 - 82° F		
Total Organic Carbon	2.83 mg/L	1.70 - 4.17 mg/L		









Association of Metropolitan Water Agencies

The EPA requires regular sampling to ensure drinking water safety. The City of Akron Water Supply Bureau conducted sampling for bacteria and inorganic and volatile organic contaminants in 2012. Samples were collected for 97 different contaminants, most of which were not detected in the Akron water supply. Akron tap water met all EPA drinking water regulations. The EPA approves the City of Akron to operate a public water system under license # 7700011-911807-2013. We have a current, unconditioned license to operate our water system.

Listed below is information on those contaminants detected.

The complete listing of all tests performed on Akron drinking water is available at www.akronohio.gov/pubutil/pdf/2012allwatertests.pdf or by calling 330-678-0077.

#### WATER QUALITY TABLE FOR 2012

	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Microbiological Contaminants		120			-3		
Turbidity (NTU)	NA	TT	0.45	0.00 - 0.45	NO	2012	Cailman
Turbidity (% meeting standard)	NA	TT	99.2%	99.2% - 100%	NO	2012	Soil runoff.
Total Organic Carbon (compliance ratio)	NA	TT	1.53	1.30 - 1.86	NO	2012	Naturally present in the environment.
Inorganic Contaminants	100						A COMPANY OF THE PARTY OF THE P
Barium (ppm)	2	2	0.030	NA	NO	2012	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chlorite (ppm), avg. of 3 samples in the distribution system	0.8	1.0	0.81	0.03 - 1.17*	NO	2012	By-product of drinking water chlorination.
Copper (ppm)	1.3	Action Level = 1.3	0.220	NA	NO	2012	Corrosion of household plumbing systems. Erosion of natural deposits.
		Zero out of 50	) samples w	ere found to have	e copper lev	els in exces	s of the copper Action Level of 1.3 ppm.
Fluoride (ppm)	4	4	0.99	0.75 - 1.17	NO	2012	Erosion of natural deposits; water additive whi promotes strong teeth; discharge from fertilize and aluminum factories.
Lead (ppb)	0	Action Level = 15	4.5	NA	NO	2012	Corrosion of household plumbing systems. Erosion of natural deposits.
		Zero out o	f 50 sample	es were found to l	nave lead le	vels in exces	ss of the lead Action Level of 15 ppb.
Nitrate (ppm)	10	10	0.42	0.01 - 0.42	NO	2012	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Residual Disinfectants	100				-	7	and the same of th
Total Chlorine (ppm)	MRDLG =	MRDL = 4	1.40	1.17 - 1.60	NO	2012	Water additive used to control microbes.
Chlorine Dioxide (ppb)	MRDLG = 800	MRDL = 800	420	20 - 420	NO	2012	Water additive used to control microbes.
Volatile Organic Chemicals		- 1		ATT-			The second second second
Haloacetic Acids HAA5 (ppb)	No goal for the total	60	36.9	6.0 - 83.5*	NO	2012	By-product of drinking water chlorination.
Total Trihalomethanes TTHMs (ppb)	No goal for the total	80	66.6	14.8 - 130*	NO	2012	By-product of drinking water chlorination.

<sup>\*</sup>The maximum Range of Detections is not a violation because individual samples are averaged with other samples before being compared with the maximum contaminant level. All water system averages were below the Ohio EPA's limits for these averages.

Radioactive Contaminants		PA .				•	
Alpha emitters (picocuries per liter)	0	15	1.4	NA	NO	2010	Erosion of natural deposits.
Radium-228 (picocuries per liter)	0	5 combined	0.12	NA	NO	2010	Erosion of natural deposits.
Unregulated Contaminants							
Bromodichloromethane (ppb)	NA	NA	5.5	NA	NO	2012	By-product of drinking water chlorination.
Chloroform (ppb)	NA	NA	10.3	NA	NO	2012	By-product of drinking water chlorination.
Dibromochloromethane (ppb)	NA	NA	1.6	NA	NO	2012	By-product of drinking water chlorination.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Akron Water Supply Bureau is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at http://www.epa.gov/safewater/lead.

The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

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